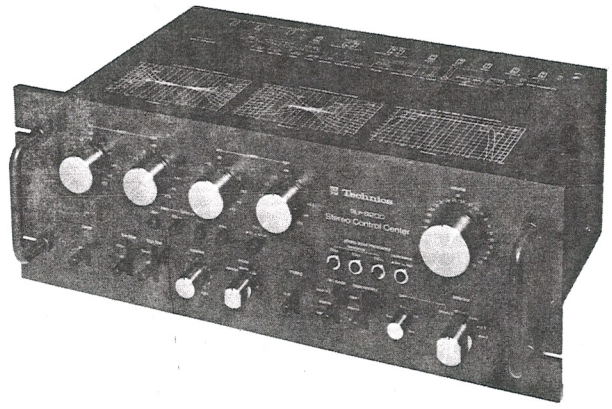
ORDER NO. SD7502-1007

Service Manual

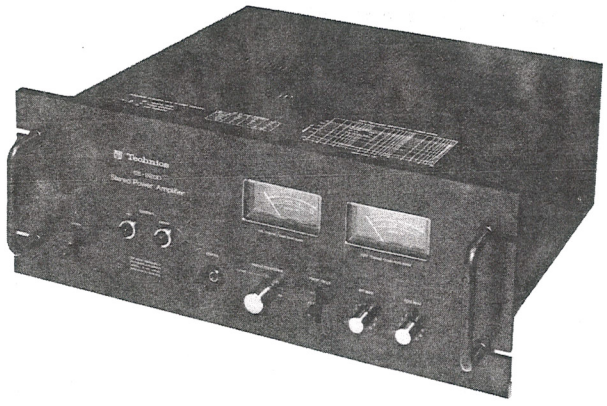
Technics
HI-FI COMPONENTS
Technics

Stereo Control Center



MODEL SU-9200

Stereo Power Amplifier



MODEL SE-9200

TECHNICAL SPECIFICATION (IHF) (For accommodating future improvements, specifications are subject to change without notice.)

SU-9200

AMPLIFIER SECTIONS

Input sensitivity and impedance		
PHONO 1		2mV/25k, 50k, 100kΩ
PHONO 2		2mV~10mV/25k, 50k, 100kΩ
TUNER, AUX 1, AUX 2		100mV/47kΩ
TAPE DECK 1, 2 PLAYBACK		100mV/47kΩ
PHONO maximum input voltage		520mV
Total harmonic distortion		0.05%
Intermodulation distortion		0.05%
Signal-to-noise ratio		
PHONO 1, 2		70 dB
TUNER, AUX 1, 2		90 dB
Frequency response		
PHONO 1, 2		RIAA standard curve ±0.25 dB
TUNER, AUX 1, 2		7 Hz~110 kHz, +0 dB, −3 dB
Tone controls		
BASS		50 Hz, +7.5 dB~−7.5 dB (11 steps)
TREBLE		20 kHz, +7.5 dB~−7.5 dB (11 steps)
Turnover frequencies		
BASS		125 Hz, 500 Hz
TREBLE		2 kHz, 8 kHz
Filters		
Low		15 Hz, 30 Hz −12 dB/oct
High		10 kHz, 15 kHz −12 dB/oct
Muting		−20 dB
Output voltage and impedance		
OUTPUT	**Rated**	1V/500Ω
	Max.	10V/500Ω
TAPE DECK 1, 2	**REC OUT**	100mV/500Ω

GENERAL

Power supply	50 Hz-60 Hz, 110V/120V/220V/240V
Power consumption	22W
Dimensions (W × H × D)	$17\frac{23}{32}$" × $6\frac{13}{16}$" × $10\frac{1}{2}$" (450 × 173 × 266.5 mm)
Weight	15 lb. (6.8 kg)

SE-9200

AMPLIFIER SECTION

1 kHz continuous power	
each channel driven	110W/110W (4Ω)
	83W / 83W (8Ω)
both channels driven	103W + 103W (4Ω)
	82W + 82W (8Ω)
20 Hz~20 kHz continuous power	
both channels driven	93W + 93W (4Ω)
	76W + 76W (8Ω)
Total harmonic distortion	0.08%
Intermodulation distortion	0.08%
Power bandwidth	
(both channels driven at 8Ω)	5 Hz~70 kHz, −3 dB
Frequency response	5 Hz~100 kHz, +0 dB, −3 dB
Signal-to-noise ratio	110 dB
Residual hum & noise	0.3mV
Damping factor	
Load impedance 8 ohms	100, 10, 3, 1
Load impedance 4 ohms	50, 5, 1.5, 0.5
Input sensitivity and impedance	1V/40kΩ
Load impedance	
MAIN or REMOTE	4~16Ω
MAIN + REMOTE	8~16Ω

GENERAL

Power supply	110V/120V/220V/240V
Power consumption	760W
Dimensions (W × H × D)	$17\frac{23}{32}$" × $6\frac{13}{16}$" × $14\frac{31}{32}$" (450 × 173 × 380.5 mm)
Weight	33.1 lb. (15 kg)

Matsushita Electric
Matsushita Electric Trading Co., Ltd.
P. O. Box 288, Central Osaka, Japan

■ REPLACEMENT PARTS LIST

Model SU-9200

NOTES: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. X−Z rank: **X** rank parts will cover 80% of repair needs. **X+Y** rank parts will cover 95% of repair needs. **Z** rank parts are less necessary.
3. **SAFETY** Indicates that only parts specified by the manufacturer be used for replacement in critical circuits.

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
TRANSISTORS				
TR101, 102, 103, 104, 201, 202, 203, 204	2SA722-T	Equalizer & Tone Differential Amplifier	8	X
TR105, 106	2SC1509Ⓔ-Q	Equalizer Amplifier	2	X
TR107, 108	2SC1509-Q	Equalizer Amp } Use in Pairs	2	X
TR109, 110	2SA777-Q	Equalizer Amp }	2	X
TR205, 206, 301, 302	2SC1328-T	Tone & Filter Amplifier	4	X
TR207, 208	2SC1318-R	Tone Flat Amp } Use in Pairs	2	X
TR209, 210	2SA720-R	Tone Flat Amp }	2	X
TR501, 506	2SD389A-P	DC Voltage Control	2	○ X
TR504, 505	2SA777-Q	DC Voltage Control	3	X
TR502, 503, 509	2SC1509-Q	DC Voltage Control & Relay Driver	2	X
TR507	2SC828-R	Relay Switching	1	X
TR508	2SC828A-R	Relay Switching	1	X
DIODES				
D101, 102	MA150	Equalizer Amplifier Bias	2	X
D501	SVDAC08P-2	Rectifier	1	X
D502	SVDAC08P-2R	Rectifier	1	X
D503	SVDEQA0106R	6V Zener	1	X
D504, 505, 508, 509	RVD10D1	Rectifier	4	X
D506, 507	SVDEQA0124R	24V Zener	2	X
TRANSFORMER				
	SLTA5L19	Power Transformer	1	○ ▭ X
RESISTORS				
R93, 94	ERD14TJ151	150Ω, 1/4W, ± 5%, Carbon	2	Y
R225, 226	ERD14TJ331	330Ω, 1/4W, ± 5%, Carbon	2	Y
R57, 58, 229, 230, 231, 232	ERD14TJ391	390Ω, 1/4W, ± 5%, Carbon	6	Y
R55, 56, 137 138, 235, 236, 329, 330	ERD14TJ471	470Ω, 1/4W, ± 5%, Carbon	8	Y
R51, 52	ERD14TJ561	560Ω, 1/4W, ± 5%, Carbon	2	Y
R49, 50, 77, 78, 113, 114	ERD14TJ681	680Ω, 1/4W, ± 5%, Carbon	6	Y
R151, 152	ERD14TJ821	820Ω, 1/4W, ± 5%, Carbon	2	Y
R45, 46, 91, 92, 507, 508	ERD14TJ102	1kΩ, 1/4W, ± 5%, Carbon	6	Y
R123, 124, 313, 314	ERD14TJ122	1.2kΩ, 1/4W, ± 5%, Carbon	4	Y
R89, 90	ERD14TJ152	1.5kΩ, 1/4W, ± 5%, Carbon	2	Y
R59, 60, 109, 110, 111, 112, 203, 204, 141, 142	ERD14TJ182	1.8kΩ, 1/4W, ± 5%, Carbon	10	Y
R87, 88, 103, 104	ERD14TJ222	2.2kΩ, 1/4W, ± 5%, Carbon	4	Y
R514	ERD14TJ272	2.7kΩ, 1/4W, ± 5%, Carbon	1	Y
R85, 86, 119, 120, 241, 242, 243, 244, 327, 328	ERD14TJ392	3.9kΩ, 1/4W, ± 5%, Carbon	10	Y
R31, 32, 35, 36, 253, 254, 321, 322, 516, 517, 519, 521	ERD14TJ472	4.7kΩ, 1/4W, ± 5%, Carbon	12	Y
R7, 8, 47, 48	ERD14TJ562	5.6kΩ, 1/4W, ± 5%, Carbon	4	Y
R37, 38, 41, 42, 53, 54, 223, 224, 227, 228	ERD14TJ682	6.8kΩ, 1/4W, ± 5%, Carbon	10	Y
R43, 44, 209, 210	ERD14TJ822	8.2kΩ, 1/4W, ± 5%, Carbon	4	Y
R211, 212, 303, 304, 305, 306, 504, 505, 506, 513, 524	ERD14TJ103	10kΩ, 1/4W, ± 5%, Carbon	11	Y
R71, 72, 73, 74, 75, 76, 79, 80, 261, 262	ERD14TJ123	12kΩ, 1/4W, ± 5%, Carbon	10	Y
R219, 220, 221, 222, 361, 362, 363, 364, 503	ERD14TJ153	15kΩ, 1/4W, ± 5%, Carbon	9	Y
R115, 116, 117, 118, 255, 256, 515	ERD14TJ183	18kΩ, 1/4W, ± 5%, Carbon	7	Y
R307	ERD14TJ223	22kΩ, 1/4W, ± 5%, Carbon	1	Y
R5, 6, 81, 82, 523	ERD14TJ333	33kΩ, 1/4W, ± 5%, Carbon	5	Y
R83, 84, 135, 136, 511, 512	ERD14TJ393	39kΩ, 1/4W, ± 5%, Carbon	6	Y
R33, 34, 39, 40, 251, 252	ERD14TJ473	47kΩ, 1/4W, ± 5%, Carbon	6	Y
R317, 318	ERD14TJ513	51kΩ, 1/4W, ± 5%, Carbon	2	Y
R319, 320, 520	ERD14TJ683	68kΩ, 1/4W, ± 5%, Carbon	3	Y
R233, 234, 259, 260, 359, 360	ERD14TJ104	100kΩ, 1/4W, ± 5%, Carbon	6	Y
R215, 216	ERD14TJ154	150kΩ, 1/4W, ± 5%, Carbon	2	Y
R139, 140, 143, 144, 239, 240, 323, 324	ERD14TJ224	220kΩ, 1/4W, ± 5%, Carbon	8	Y
R257, 258, 522	ERD14TJ334	330kΩ, 1/4W, ± 5%, Carbon	3	Y
R353, 354, 357, 358	ERD14TJ564	560kΩ, 1/4W, ± 5%, Carbon	4	Y
R351, 352, 355, 356, 365, 366	ERD14TJ824	820kΩ, 1/4W, ± 5%, Carbon	6	Y
R107, 108	ERD14TSJ393	39kΩ, 1/4W, ± 5%, Carbon	2	Y
R301, 302	ERD14TSJ823	82kΩ, 1/4W, ± 5%, Carbon	2	Y
R3, 4, 309, 310	ERD14TSJ104	100kΩ, 1/4W, ± 5%, Carbon	4	Y
R207, 208	ERD14TSJ154	150kΩ, 1/4W, ± 5%, Carbon	2	Y
R213, 214	ERD14TSJ184	180kΩ, 1/4W, ± 5%, Carbon	2	Y
R101, 102, 105, 106	ERD14TSJ224	220kΩ, 1/4W, ± 5%, Carbon	4	Y
R205, 206, 315, 316	ERD14TSJ334	330kΩ, 1/4W, ± 5%, Carbon	4	Y
R217, 218	ERD14TSJ394	390kΩ, 1/4W, ± 5%, Carbon	2	Y
R1, 2, 201, 202	ERD14TSJ564	560kΩ, 1/4W, ± 5%, Carbon	4	Y
R311	ERD14TSJ105	1MΩ, 1/4W, ± 5%, Carbon	1	Y
R131, 132, 133, 134	ERD14FJ221	220Ω, 1/4W, ± 5%, Carbon	4	Y
R121, 122, 125, 126	ERD14FJ331	330Ω, 1/4W, ± 5%, Carbon	4	Y
R325, 326	ERD14FJ392	3.9kΩ, 1/4W, ± 5%, Carbon	2	Y
R518	ERD18FJ2R2	2.2Ω, 1/8W, ± 5%, Carbon	1	▭ Y
R501, 502, 509, 510	ERD18FJ100	10Ω, 1/8W, ± 5%, Carbon	4	▭ Y
R525	ERD12FJ181	180Ω, 1/2W, ± 5%, Carbon	1	▭ Y
R149, 150	ER014CKF6802	68kΩ, 1/4W, ± 1%, Metallic	2	○ Y
R145, 146	ER014CKF8203	820kΩ, 1/4W, ± 1%, Metallic	2	Y
R367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378	ERC14GK825	8.2MΩ, 1/4W, ±10%, Solid	12	Y
R308	ERD14VJ223	22kΩ, 1/4W, ± 5%, Carbon	1	Y
R312	ERD14VJ105	1MΩ, 1/4W, ± 5%, Carbon	1	Y
VARIABLE RESISTORS				
VR1	EWCD1AR30A1T	100kΩ(A), Volume Control	1	Y
VR2	EWFNTAF25252	250kΩ(BH), Balance Control	1	Y
VR3	EWFOPA025B24	20kΩ(B), Phono 2 Gain Control	1	○ Y
VR501	EVLS3AA00B53	5kΩ(B), Positive Voltage Control	1	Y
VR502	EVLS3AA00B23	2kΩ(B), Negative Voltage Control	1	Y
CAPACITORS				
C207, 208	ECCD1H100KC	10pF, 50WV, ±10%, Ceramic	2	Z
C251, 252, 255, 256	ECCD1H180K	18pF, 50WV, ±10%, Ceramic	4	Z
C253, 254	ECCD1H220K	22pF, 50WV, ±10%, Ceramic	2	Z
C105, 106	ECCD1H390K	39pF, 50WV, ±10%, Ceramic	2	Z
C121, 122	ECCD1H101K	100pF, 50WV, ±10%, Ceramic	2	Z
C1, 2	ECCD1H151K	150pF, 50WV, ±10%, Ceramic	2	Z
C111, 112	ECCD2H150K	15pF, 500WV, ±10%, Ceramic	2	Z
C103, 104	ECKC1H471KB	470pF, 50WV, ±10%, Ceramic	2	Z
C257, 258	ECKC1H681KB	680pF, 50WV, ±10%, Ceramic	2	Z
C125, 126	ECKE1H102MD	0.001μF, 50WV, ±20%, Ceramic	2	Z
C511	ECKE1H103MD	0.01μF, 50WV, ±20%, Ceramic	1	Z
C3, 4	ECQU2A103MD	0.01μF, 250VAC, ±20%, Polyester	2	▭ Z

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
C307, 308	ECQM05102KZ	0.001μF, 50WV, ±10%, Polyester	2	Z
C305, 306	ECQM05152KZ	0.0015μF, 50WV, ±10%, Polyester	2	Z
C259, 260	ECQM05182KZ	0.0018μF, 50WV, ±10%, Polyester	2	Z
C131, 132	ECQM05392JZ	0.0039μF, 50WV, ± 5%, Polyester	2	Z
C271, 272	ECQM05682KZ	0.0068μF, 50WV, ±10%, Polyester	2	Z
C261, 262	ECQM05103JZ	0.01μF, 50WV, ± 5%, Polyester	2	Z
C269, 270	ECQM05183KZ	0.018μF, 50WV, ±10%, Polyester	2	Z
C315, 316	ECQM05273KZ	0.027μF, 50WV, ±10%, Polyester	2	Z
C263, 264	ECQM05273JZ	0.027μF, 50WV, ± 5%, Polyester	2	Z
C313, 314	ECQM05333KZ	0.033μF, 50WV, ±10%, Polyester	2	Z
C309, 310, 311, 312	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	4	Z
C265, 266	ECQM05104JZ	0.1μF, 50WV, ± 5%, Polyester	2	Z
C201, 202, 317, 318	ECQM05224KZ	0.22μF, 50WV, ±10%, Polyester	4	Z
C267, 268	ECQM05274JZ	0.27μF, 50WV, ± 5%, Polyester	2	Z
C213, 214	ECQM05474KZ	0.47μF, 50WV, ±10%, Polyester	2	Z
C101, 102, 319, 320	ECQM05105MZ	1μF, 50WV, ±20%, Polyester	4	Z
C303, 304	ECQS1471JZ	470pF, 125WV, ± 5%, Styrol	2	Z
C301, 302	ECQS1681JZ	680pF, 125WV, ± 5%, Styrol	2	Z
C123, 124	ECQF1102GZN	0.001μF, 125WV, ± 2%, Polyester	2	Z
C119, 120	ECQF1392GZN	0.0039μF, 125WV, ± 2%, Polyester	2	Z
C113, 114, 209, 210	ECEA6V33L	33μF, 6.3WV, Electrolytic	4	Y
C109, 110	ECEA6V100L	100μF, 6.3WV, Electrolytic	2	Y
C513	ECEA6V220L	220μF, 6.3WV, Electrolytic	1	Y
C205, 206	ECEA16V10	10μF, 16WV, Electrolytic	2	Y
C211, 212	ECEA16V47L	47μF, 16WV, Electrolytic	2	Y
C512	ECEA25V3R3L	3.3μF, 25WV, Electrolytic	1	Y
C129, 130	ECEA25V10L	10μF, 25WV, Electrolytic	2	Y
C217, 218, 219, 220, 323, 324, 510	ECEA25V47L	47μF, 25WV, Electrolytic	7	Y
C321, 322	ECEA25V47V	47μF, 25WV, Electrolytic	2	Y
C509	ECEA25V100L	100μF, 25WV, Electrolytic	1	Y
C203, 204	ECEA50V1L	1μF, 50WV, Electrolytic	2	Y
C115, 116, 127, 128, 505, 506	ECEA50V47L	47μF, 50WV, Electrolytic	6	Y
C507, 508	ECEA50V100L	100μF, 50WV, Electrolytic	2	Y
C503, 504	ECEA63V47L	47μF, 63WV, Electrolytic	2	Y
C117, 118	ECEA50N4R7	4.7μF, 50WV, Non-Polar	2	○ Y
C215, 216	ECEA16N47	47μF, 16WV, Non-Polar	2	Y
C501, 502	ECET63R470S	470μF, 63WV, Electrolytic	2	Y
C5	ECEB63V100L	100μF, 63WV, Electrolytic	1	Y
COMPONENT COMBINATIONS				
M501, 502	RXAF103P22HD	Noise Cancel, 0.01μF(X2), Ceramic	2	Y
SWITCHES and RELAY				
S1, 2	SSHA53S	Phono Impedance & Capacitance Switch	1	Y
S3	SSRA76	Selector Switch	1	Y
S4	SSLA31S	Tape Monitor Switch	1	Y
S5	SSLA32S	Tape Dubbing (rec mode) Switch	1	Y
S6	SSLA33S	Audio Muting Switch	1	Y
S7	SSRA77	Mode Switch	1	Y
S8, 11	SSRA78	Bass Control Switch	2	Y
S9, 10	SSRA79	Treble Control Switch	2	Y
S12	SSHA52S	Tone Defeat Switch	1	Y
S13, 14	SSHA51S	Turnover Frequency Switch	1	Y
S15, 16	SSLA40S	Filter Switch	2	Y
S17	SSLA34S	Power Source Switch	1	Y
S18	SSRA8	Voltage Selector Switch	1	Y
RLY1, 2	SSEA14	AF Output Relay	2	Y

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
FUSE and LAMP				
F1	XBA2K04NS5	400mA Fuse, Power Source	1	○ X
	XAM37T150	Pilot Lamp (7.5V 75mA)	1	X
CABINET PARTS				
	SGWA1361	Front Panel	1	○ Y
	SKYA4	Handle, Front Panel	2	Z
	SKYA8	Plate, Front Panel Handle M'tg.	2	○ Z
	SGLA9	Orange Dial Light	1	Z
	SKUA420	Bottom Board	1	○ Z
	SHGA303	Leg	4	Z
	XYN3DC8KS	Bolt, Front Panel M'tg.	6	Z
	SBNA128	Knob, Bass & Treble Control	4	Y
	SBNA127S	Knob, Volume Control	1	Y
	SBNA129	Knob, Balance Control	1	Y
	SBNA130	Knob, Phono 2 Gain Control	1	○ Y
	SBSA11	Knob, Selector Switch	1	Y
	SBSA12	Knob, Mode Switch	1	Y
	SBLA4-1	Knob, Lever Switch	6	Y
	SKAA810	Cabinet	1	○ Y
	XSB4+10KS	Screw, Cabinet M'tg.	4	Z
	SGPA640-1A	Rear Panel	1	○ Z
	SJFA3005	Terminal, Phono 1,2, Tuner & Aux 1,2	1	Y
	SJFA3207	Terminal, Output	1	Y
	SJFA3409	Terminal, Tape Deck 1,2	2	Y
	SJSA66-1	Socket, AC Outlet	3	Y
	SNEA204-2S	Nut, Ground	1	Z
	SNEA404	Bolt, Ground	1	Z
	SJAA6	AC Cord	1	Y
	SHRA108	Bushing, AC Cord	1	○ Z
	SJPA11	Short Pin, Phono 2 Input	2	Y
	SBCA51-1	Button, Phono Impedance, Capacitance	4	Z
	SBCA52	Button, Turnover & Tone Defeat	5	Z
	SMZA6091	Rubber Bracket, Pilot Lamp	1	Z
	XTB4+8BR	Red Screw, Bottom Board M'tg.	6	Z
ACCESSORIES				
	SJP2129	Connector Cord	1	Y
	RJP5	Pin Plug	4	Y
	RJP74-1	AC Plug	1	Y
	RJP75	AC Plug	1	Y
PACKING PARTS				
	SPPA40	Soft Cover	1	○ Z
	SPHA6010	Polyethylene Sheet	1	Z
	SPSA139	Side Pad, Left & Right	2	○ Z
	SPSA138	Pad, Carton Box, Inner & Outer	1	○ Z
	SPNA370A	Carton Box, Inner	1	○ Z
	SPGA741A	Carton Box, Outer	1	○ Z
	SQFA255	Printed Matter, Complete	1	○ Y

■ REPLACEMENT PARTS LIST

NOTES: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
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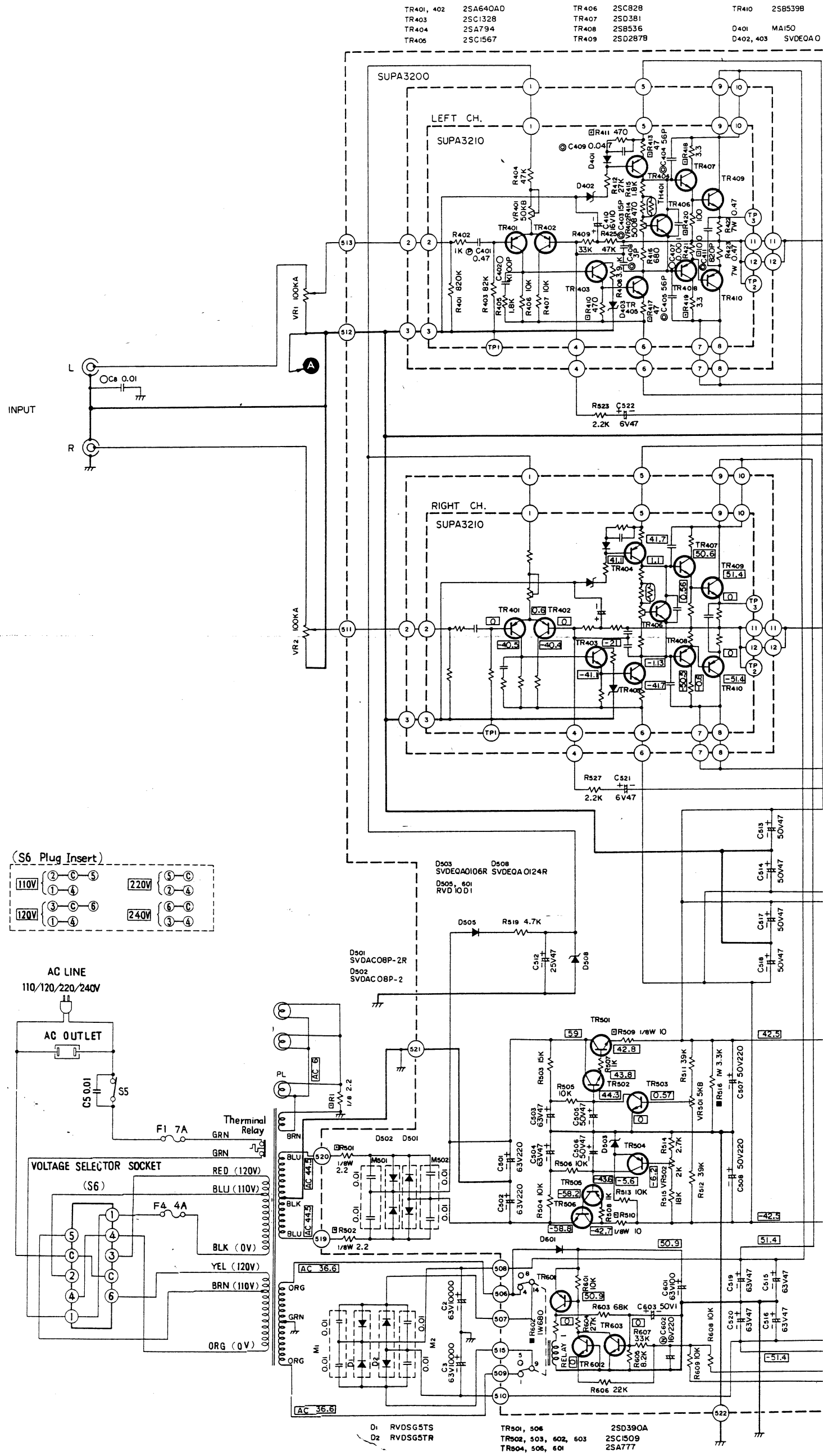
X+Y rank parts will cover 95% of repair needs.
Z rank parts are less necessary.
3. SAFETY Indicates that only parts specified by the manufacturer be used for replacement in critical circuits.

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
TRANSISTORS				
TR(401,402)×2	2SA640AD-R	Differential Amplifier	4	X
TR(403)×2	2SC1328-T	Pre Driver Amplifier	2	X
TR(404)×2	2SA794-R	Driver Amplifier	2	X
TR(405)×2	2SC1567-R	Driver Amplifier	2	X
TR(406)×2	2SC828-R	Thermal Compensation	2	X
TR(407)×2	2SD381-L	Driver Amplifier (Use in Pairs)	2	X
TR(408)×2	2SB536-L	Driver Amplifier (Use in Pairs)	2	X
TR(409)×2	2SD287B-R	Power Amplifier (Use in Pairs)	2	X
TR(410)×2	2SB539B-R	Power Amplifier (Use in Pairs)	2	X
TR501,506	2SD390A-P	DC Voltage Control	2	X
TR502,503, 602,603	2SC1509-Q	Voltage Control & Relay Switching	4	X
TR504,505, 601	2SA777-Q	Voltage Control & Relay Driver	3	X
TR801,802, 803,804	2SC828-S	Level Meter Control	4	X
DIODES				
D1	RVDSG5TS	Rectifier	1	X
D2	RVDSG5TR	Rectifier	1	X
D(401)×2	MA150	Thermo Compensation	2	X
D(402,403)×2	SVDEQA0112R	12V Zener	4	X
D501	SVDAC08P-2R	Rectifier	1	X
D502	SVDAC08P-2	Rectifier	1	X
D503	SVDEQA0106R	6V Zener, Voltage Stabilizer	1	X
D505,601,801, 802,803,804	RVD10D1	Rectifier & Meter Detector	6	X
D508	SVDEQA0124R	24V Zener, Voltage Stabilizer	1	X
THERMISTOR				
TH(401)×2	RRT251	Main Amplifier Circuit	2	Y
TRANSFORMER				
	SLTA5S12S	Power Transformer	1	○ X
RESISTORS				
R8,11	ERD14TJ271	270Ω, 1/4W, ± 5%, Carbon	2	Y
R7,10,(414)×2	ERD14TJ471	470Ω, 1/4W, ± 5%, Carbon	4	Y
R(416)×2	ERD14TJ681	680Ω, 1/4W, ± 5%, Carbon	2	Y
R6,9,(402)×2, 507,508	ERD14TJ102	1kΩ, 1/4W, ± 5%, Carbon	6	Y
R(405,415)×2	ERD14TJ182	1.8kΩ, 1/4W, ± 5%, Carbon	4	Y
R523,527,811, 812	ERD14TJ222	2.2kΩ, 1/4W, ± 5%, Carbon	4	Y
R514	ERD14TJ272	2.7kΩ, 1/4W, ±55%, Carbon	1	Y
R(408)×2	ERD14TJ392	3.9kΩ, 1/4W, ± 5%, Carbon	2	Y
R519	ERD14TJ472	4.7kΩ, 1/4W, ± 5%, Carbon	1	Y
R605	ERD14TJ822	8.2kΩ, 1/4W, ± 5%, Carbon	1	Y
R(406,407)×2, 504,505,506, 513,601,608, 609,829,830	ERD14TJ103	10kΩ, 1/4W, ± 5%, Carbon	13	Y
R503	ERD14TJ153	15kΩ, 1/4W, ± 5%, Carbon	1	Y
R515	ERD14TJ183	18kΩ, 1/4W, ± 5%, Carbon	1	Y
R606	ERD14TJ223	22kΩ, 1/4W, ± 5%, Carbon	1	Y
R(412)×2, 604	ERD14TJ273	27kΩ, 1/4W, ± 5%, Carbon	3	Y
R835,836	ERD14TJ123	12kΩ, 1/4W, ± 5%, Carbon	2	Y
R(409)×2,607	ERD14TJ333	33kΩ, 1/4W, ± 5%, Carbon	3	Y
R805~810	ERD14TJ332	3.3kΩ, 1/4W, ± 5%, Carbon	6	Y
R511,512	ERD14TJ393	39kΩ, 1/4W, ± 5%, Carbon	2	Y
R(404,425)×2	ERD14TJ473	47kΩ, 1/4W, ± 5%, Carbon	4	Y
R603	ERD14TJ683	68kΩ, 1/4W, ± 5%, Carbon	1	Y
R(403)×2	ERD14TJ823	82kΩ, 1/4W, ± 5%, Carbon	2	Y
R801,802,803, 804,813,814, 815,816	ERD14TJ474	470kΩ, 1/4W, ± 5%, Carbon	8	Y
R(401)×2	ERD14TJ824	820kΩ, 1/4W, ± 5%, Carbon	2	Y
R(418,419)×2	ERD14FJ3R3	3.3Ω, 1/4W, ± 5%, Carbon	4	Y
R(413,417)×2	ERD14FJ470	47Ω, 1/4W, ± 5%, Carbon	4	Y
R(420,421)×2, 522,526	ERD14FJ101	100Ω, 1/4W, ± 5%, Carbon	6	Y
R(410,411)×2	ERD14FJ471	470Ω, 1/4W, ± 5%, Carbon	4	Y
R521,525	ERD12TJ222	2.2kΩ, 1/2W, ± 5%, Carbon	2	Y
R823,824	ERD12FJ221	220Ω, 1/2W, ± 5%, Carbon	2	○ Y
R819,820	ERD12FJ391	390Ω, 1/2W, ± 5%, Carbon	2	○ Y
R1,501,502	ERD18FJ2R2	2.2Ω, 1/8W, ± 5%, Carbon	3	Y
R509,510	ERD18FJ100	10Ω, 1/8W, ± 5%, Carbon	2	Y
R837,838	ERG1ANJ151	150Ω, 1W, ± 5%, Metallic	2	Y
R602	ERG1ANJ681	680Ω, 1W, ± 5%, Metallic	1	Y
R516	ERG1ANJ332	3.3kΩ, 1W, ± 5%, Metallic	1	Y
R2,3	ERX2ANJ100	10Ω, 2W, ± 5%, Metallic	2	Y
R825,826,831, 832	ERG2ANJ151	150Ω, 2W, ± 5%, Metallic	4	Y
R827,828	ERG2ANJ331	330Ω, 2W, ± 5%, Metallic	2	Y
R4,5	ERG2ANJ471	470Ω, 2W, ± 5%, Metallic	2	Y
R833,834	ERG2ANJ152	1.5kΩ, 2W, ± 5%, Metallic	2	Y
R817,818	ERG2ANJ332	3.3kΩ, 2W, ± 5%, Metallic	2	Y
R821,822	ERG2ANJ392	3.9kΩ, 2W, ± 5%, Metallic	2	Y
R(422,423)×2	ERF7SJR47	0.47Ω, 7W, ± 5%, Non-Flammable	4	○ Y
R12,13	ERF10HMJR36A	0.36Ω, 10W, ± 5%, Non-Flammable	2	○ Y
VARIABLE RESISTORS				
VR1,2	EVC6BAF25A15	100kΩ(A), Input Gain Control	2	Y
VR(401)×2	EVLS0AA00B54	50kΩ(B), DC Unbalance Adjustment	2	Y
VR(402)×2	EVLS0AA00B52	500Ω(B), ICQ Adjustment	2	Y
VR501	EVLS3AA00B53	5kΩ(B), Positive Voltage Control	1	Y
VR502	EVLS3AA00B23	2kΩ(B), Negative Voltage Control	1	Y
VR801,802	EVLS0AA00B23	2kΩ(B), Meter Adjustment	2	Y
VR803,804	EVLS0AA00B14	10kΩ(B), Meter Adjustment	2	Y
CAPACITORS				
C(402)×2	ECCD1H101K	100pF, 50WV, ±10%, Ceramic	2	Z
C(411)×2	ECKD1H821KB	820pF, 50WV, ±10%, Ceramic	2	Z
C4,5	ECKD1H102MD	0.001μF, 50WV, ±20%, Ceramic	2	Z
C8	ECKD1H103PF	0.01μF, 50WV, +100 −0%, Ceramic	1	Z
C(409)×2	ECKD1H473ZF	0.47μF, 50WV, +80 −20%, Ceramic	2	Z
C(408)×2	ECCD2H030DC	3pF, 500WV, ±0.5pF, Ceramic	2	Z
C(403)×2	ECCD2H150K	15pF, 500WV, ±10%, Ceramic	2	Z
C(404,405)×2	ECCD2H560K	56pF, 500WV, ±10%, Ceramic	4	Z
C1	ECQU2A103MD	0.01μF, 250VAC, ±20%, Polyester	1	Z
C803,804	ECQM05334KZ	0.33μF, 50WV, ±10%, Polyester	2	Z
C(401)×2, 801,802	ECQM05474KZ	0.47μF, 50WV, ±10%, Polyester	4	Z
C6,7	ECQM1473M	0.47μF, 125WV, ±20%, Polyester	2	Z
C521,522	ECEA6V47L	47μF, 6.3WV, Electrolytic	2	Y
C(410)×2	ECEA16V10L	10μF, 16WV, Electrolytic	2	Y
C512	ECEA25V47L	47μF, 25WV, Electrolytic	1	Y
C603	ECEA50V1L	1μF, 50WV, Electrolytic	1	Y
C505,506,513, 514,517,518	ECEA50V47L	47μF, 50WV, Electrolytic	6	Y
C507,508	ECEA50V220L	220μF, 50WV, Electrolytic	2	Y
C503,504,515, 516,519,520	ECEA63V47L	47μF, 63WV, Electrolytic	6	Y
C601	ECEA63V100V	100μF, 63WV, Electrolytic	1	Y
C501,502	ECEA63V220L	220μF, 63WV, Electrolytic	2	Y
C602	ECEA16N220V	220μF, 16WV, Non-Polar	1	Y
C2,3	ECEM63R103E	10000μF, 63WV, Electrolytic	2	Y
C(407)×2	ECKE1H102MD	0.001μF, 50WV, ±20%, Ceramic	2	Z
COMPONENT COMBINATIONS				
M1,2,501,502	RXAF103P22HD	Noise Cancel, 0.01μF(X2), Ceramic	4	Y
SWITCHES and RELAY				
S1	SSLA41S	Meter Range Selector Switch	1	○ Y
S2	ESRC244F25AP	Output Impedance Selector Switch	1	Y
S3,4	ESB707	Main & Remote Speakers Switch	2	Y
S5	SSLA34S	Power Source Switch	1	Y
S6	SJEA4	Socket, Voltage Selector	1	Y

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
RELAY 1	SSYA1	Relay, Speakers Protections	1	Y
		FUSES and LAMP		
F1	XBA2E70NS5	7A Fuse, Power Source	1	X
F2, 3	XBAS1A5001	5A Fuse, Circuit Protection	2	X
F4	XBA2K40NS5	4A Fuse, Power Source	1	○ X
PL	**XAM37T150**	Pilot Lamp (7.5V 75mA)	1	X
		CABINET PARTS		
	SSMA28-1	Output Level Meter	2	X
	SGWA1371	Front Panel	1	Y
	SKYA4	Handle, Front Panel	2	Z
	SKYA8	Plate, Front Panel Handle M'tg.	2	Z
	SGUA23	Plastic Plate, Meter	2	Z
	SGLA9	Orange Dial Light	1	Z
	SKUA410	Bottom Board	1	○ Z
	SHGA303	Leg	4	Z
	XTB4+8BR	Red Screw, Bottom Board M'tg.	8	Z
	XYN3DC8KS	Bolt, Front Panel M'tg.	6	Z
	SKAA820-1	Cabinet	1	○ Y
	XSB4+10KS	Screw, Cabinet M'tg.	4	Z
	SBNA130	Knob, Output Level Control	2	Y
	SBSA12	Knob, Output Impedance Switch	1	Y
	SBLA4-1	Knob, Power & Meter Range Switch	2	Y
	SGPA650-1A	Rear Panel	1	○ Z
	SJFA3207	Terminal, Input	1	Y
	SJFA5403	Terminal, Speakers	2	Y
	SJFA1	Holder, Circuit Protection Fuses	2	Y
	SJSA66-1	Socket, AC Outlet	1	Y
	SJAA6	AC Cord	1	Y
	SHRA108	Bushing, AC Cord	1	Z
	SJJA10-3	Jack, Headphones	1	Y
	SJSA65	Socket, Main Amp p.c.b. Connector	4	Z
	SMZA6091	Bracket, Pilot Lamp	1	Z
	SJFA107	Holder, Power Source Fuse	1	Y
	SBCA53	Button, Speakers Switch	2	Y
		ACCESSORIES		
	SJP2129	Connector Cord	1	Y
	XBAS1A5001	5A Fuse, Circuit Protection	2	X
	RJP5	Pin Plug	4	Y
	RJP74-1	AC Plug	1	Y
	RJP75	AC Plug	1	Y
		PACKING PARTS		
	SPPA27	Soft Cover	1	Z
	SPHA6008	Polyethylene Sheet	1	Z
	SPSA130	Pad, Right & Left Side	2	○ Z
	SPNA109	Pad, Top Side	1	Z
	SPS11	Pad, Rear Side	1	Z
	SPNA380A	Carton Box, Inner	1	○ Z
	SPGA721A	Carton Box, Outer	1	○ Z
	SOFA256	Printed Matter, Complete	1	○ Y

Printed in Japan

Schematic Diagram..... Model SE-9200 (This schematic diagram may be modified



Model SE-9200 (This schematic diagram may be modified at any time with the development of new technology)

TR401, 402 2SA640AD
TR403 2SC1328
TR404 2SA794
TR405 2SC1567
TR406 2SC828
TR407 2SD381
TR408 2SB536
TR409 2SD287B
TR410 2SB539B
D401 MA150
D402, 403 SVDE0A0112R

SUPA3200
LEFT CH.
SUPA3210
RIGHT CH.
SUPA3210
SUPA3350

VR1 100KA
VR2 100KA
S1
S2-1
S2-2
S2-3
S2-4
S2-5
S2-6
S3
S4
F2 5A
F3 5A
PL
BRN
BLU
BLK
ORG
GRN
AC 44.5
AC 36.6
AC 6

D503 SVDEQA0106R D508 SVDEQA0124R
D505, 601 RVD10D1
D501 SVDAC08P-2R
D502 SVDAC08P-2
D1 RVDSG5TS
D2 RVDSG5TR

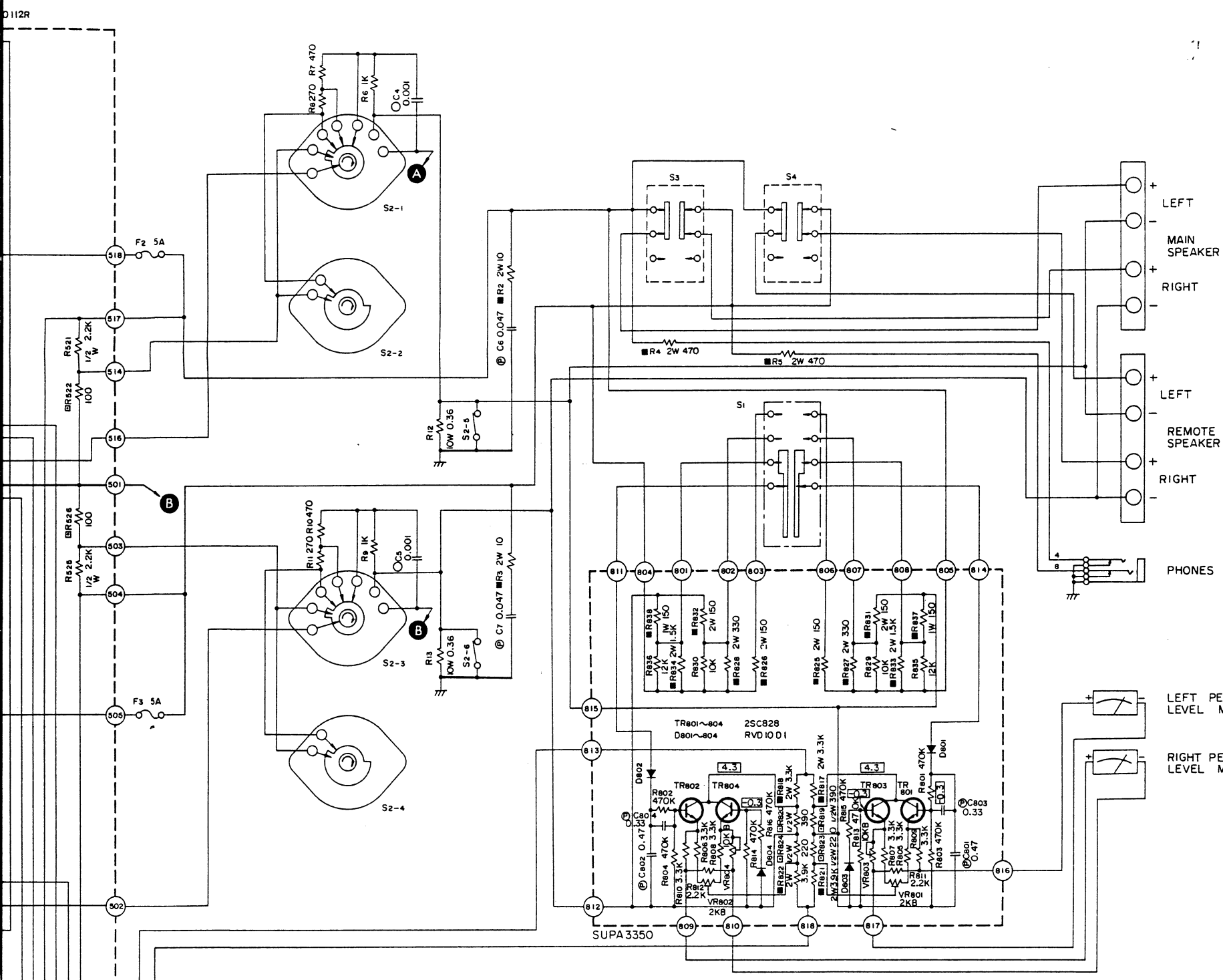
TR501, 506 2SD390A
TR502, 503, 602, 603 2SC1509
TR504, 505, 601 2SA777
TR801~804 2SC828
D801~804 RVD10D1

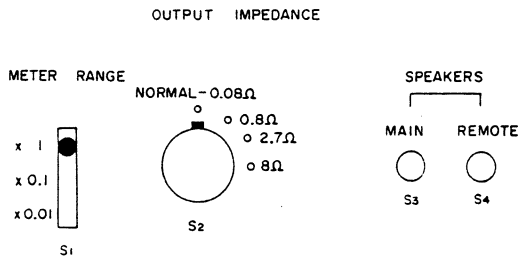
OUTPUT IMPEDANCE
METER RANGE
NORMAL-0.08Ω
0.8Ω
2.7Ω
8Ω
x 1
x 0.1
x 0.01
SPEAKERS
MAIN
REMOTE

Notes :

1. **S1 :** Meter rang
   X1 ↔
2. **S2-1~S2-6 :** Ou
   po
   norm
   S2
   no
3. **S3 :** Main speak
4. **S4 :** Remote spe
5. **S5 :** Power sour
6. **S6 :** Voltage sel
7. **RELAY 1 :** Speak
8. DC voltage meas
9. Right channel ma

d at any time with the development of new technology)

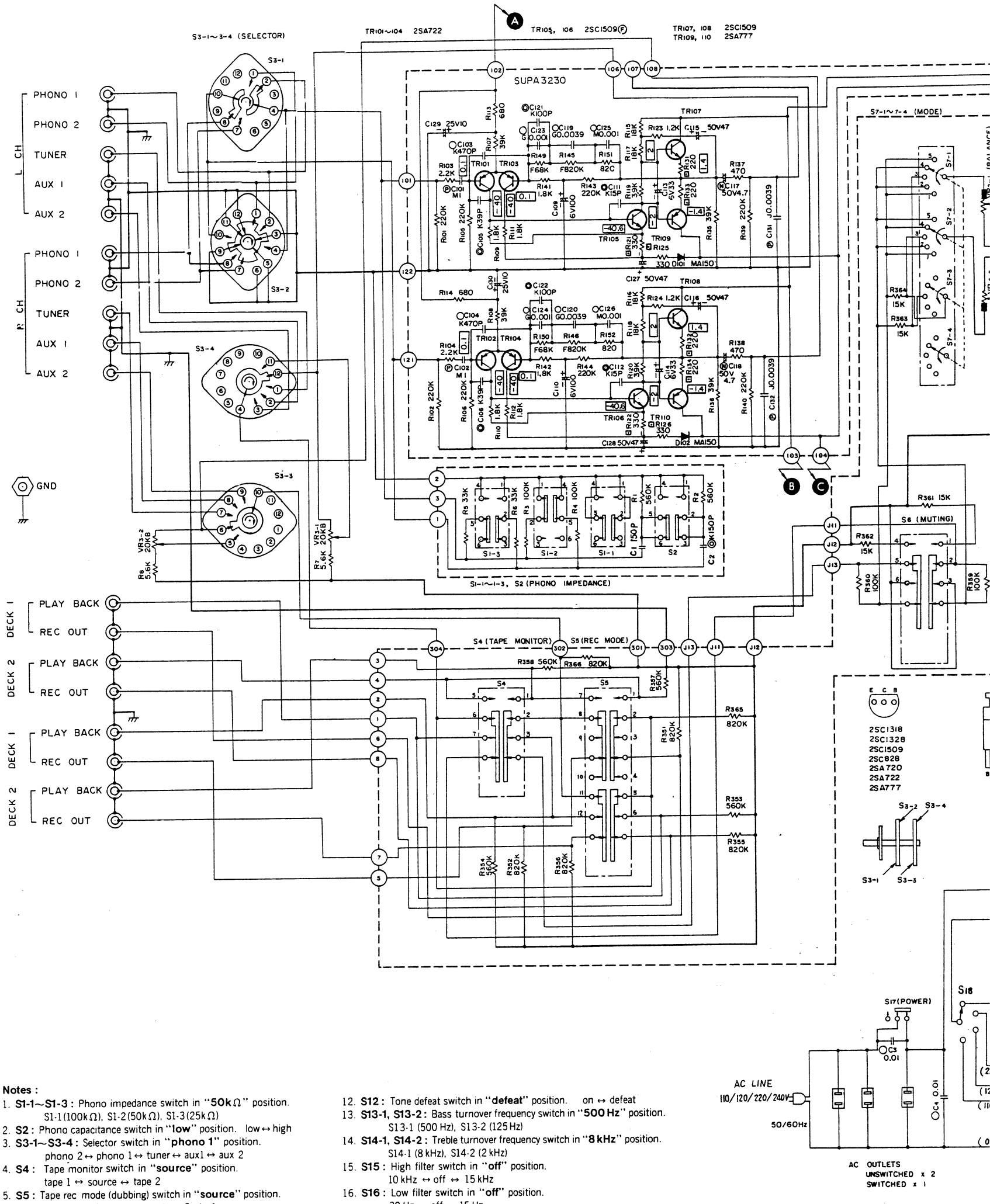




Notes :

1. **S1 :** Meter range selector switch in "**X1**" position.
   X1 ↔ X0.1 ↔ X0.01
2. **S2-1~S2-6 :** Output impedance (damping factor) selector switch in "**normal (0.08Ω)**" position.
   normal (0.08Ω) ↔ 0.8Ω ↔ 2.7Ω ↔ 8Ω
   S2-5, S2-6 is short condition, when output impedance selector switch is normal position only.
3. **S3 :** Main speakers switch in "**on**" position.
4. **S4 :** Remote speakers switch in "**on**" position.
5. **S5 :** Power source switch in "**on**" position.
6. **S6 :** Voltage selector socket.
7. **RELAY 1 :** Speakers protection relay in "**normal**" position.
8. DC voltage measurements are taken with DC VTVM from chassis ground.
9. Right channel main amplifier is same as left channel main amplifier.

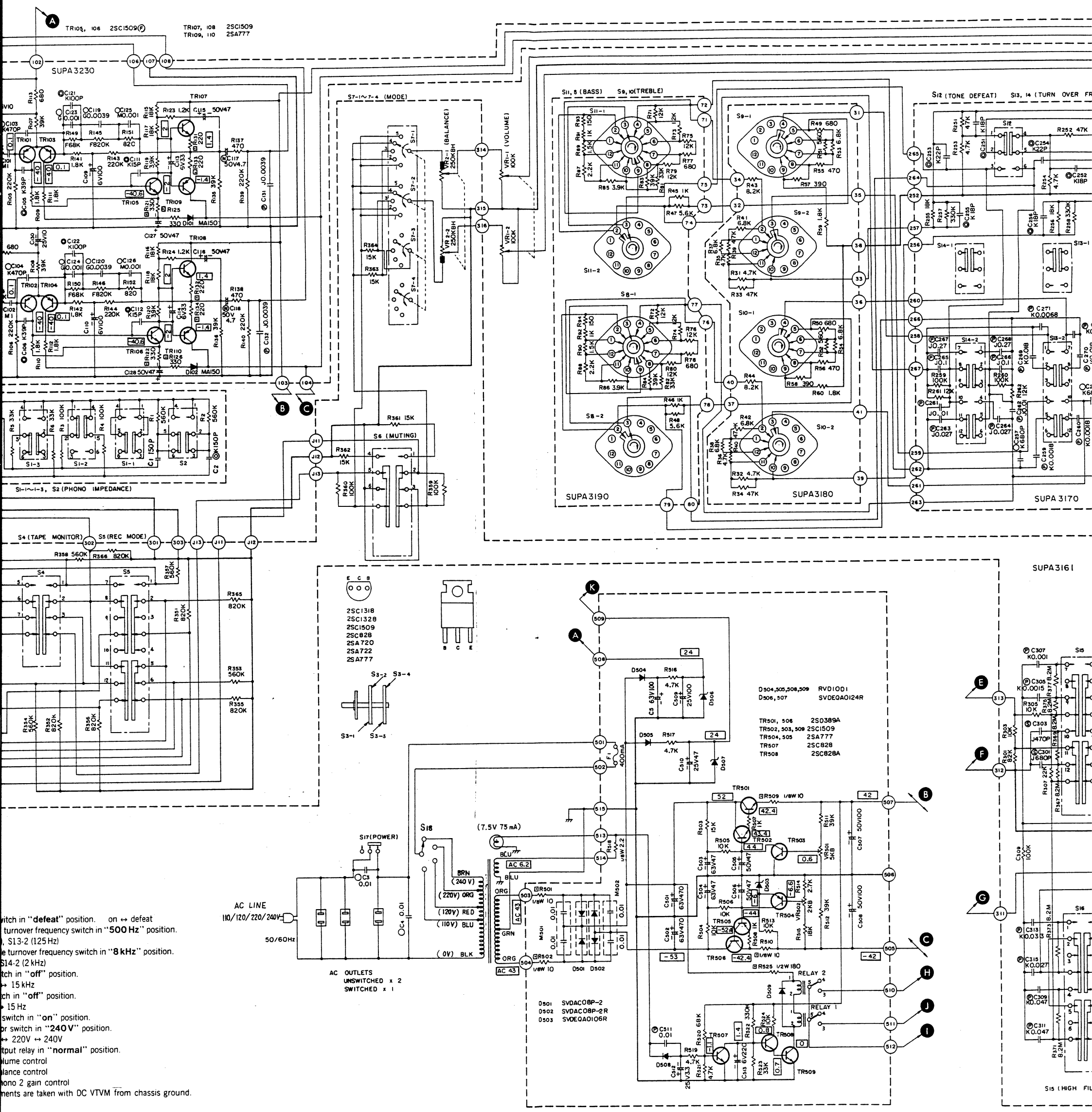
Schematic Diagram..... Model SU-9200 (This schematic diagram may be modified at a



Notes :

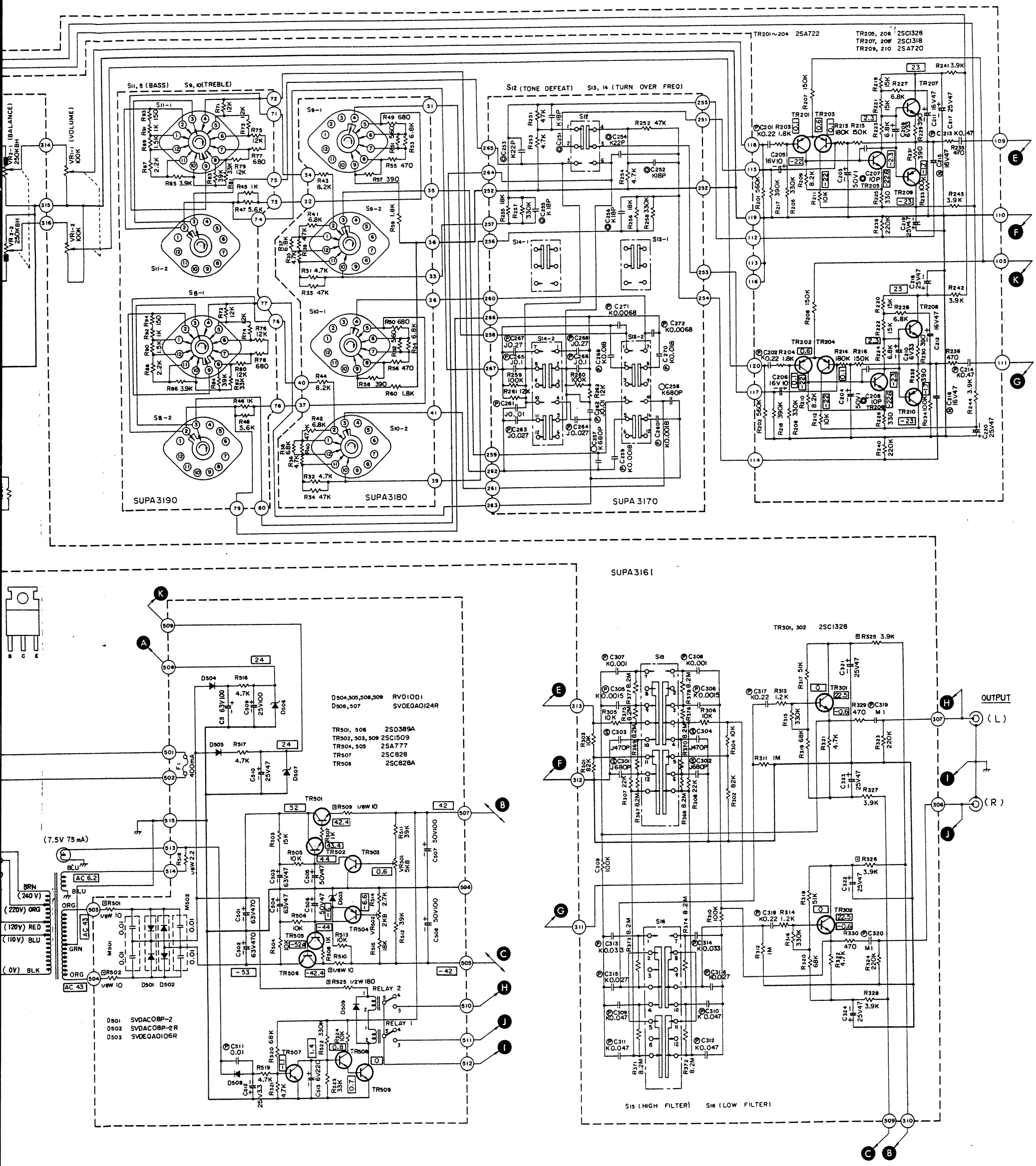
1. **S1-1~S1-3 :** Phono impedance switch in "**50kΩ**" position.
   S1-1 (100kΩ), S1-2 (50kΩ), S1-3 (25kΩ)
2. **S2 :** Phono capacitance switch in "**low**" position. low ↔ high
3. **S3-1~S3-4 :** Selector switch in "**phono 1**" position.
   phono 2 ↔ phono 1 ↔ tuner ↔ aux1 ↔ aux 2
4. **S4 :** Tape monitor switch in "**source**" position.
   tape 1 ↔ source ↔ tape 2
5. **S5 :** Tape rec mode (dubbing) switch in "**source**" position.
   tape 1 ▶ 2 ↔ source ↔ tape 2 ▶ 1
6. **S6 :** Audio muting switch in "**0 dB**" position. 0 dB ↔ −20 dB
7. **S7-1~S7-4 :** Mode switch in "**Stereo**" position.
   reverse ↔ stereo ↔ L + R ↔ L ↔ R
8. **S8-1, S8-2 :** Right channel bass control switch in "**0 dB**" position.
   −7.5 dB ~ (1.5 dB steps) ~ +7.5 dB
9. **S9-1, S9-2 :** Left channel treble control switch in "**0 dB**" position.
   −7.5 dB ~ (1.5 dB steps) ~ +7.5 dB
10. **S10-1, S10-2 :** Right channel treble control switch in "**0 dB**" position.
    −7.5 dB ~ (1.5 dB steps) ~ +7.5 dB
11. **S11-1, S11-2 :** Left channel bass control switch in "**0 dB**" position.
    −7.5 dB ~ (1.5 dB steps) ~ +7.5 dB
12. **S12 :** Tone defeat switch in "**defeat**" position. on ↔ defeat
13. **S13-1, S13-2 :** Bass turnover frequency switch in "**500 Hz**" position.
    S13-1 (500 Hz), S13-2 (125 Hz)
14. **S14-1, S14-2 :** Treble turnover frequency switch in "**8 kHz**" position.
    S14-1 (8 kHz), S14-2 (2 kHz)
15. **S15 :** High filter switch in "**off**" position.
    10 kHz ↔ off ↔ 15 kHz
16. **S16 :** Low filter switch in "**off**" position.
    30 Hz ↔ off ↔ 15 Hz
17. **S17 :** Power source switch in "**on**" position.
18. **S18 :** Voltage selector switch in "**240 V**" position.
    110V ↔ 120V ↔ 220V ↔ 240V
19. **RELAY 1, 2 :** AF output relay in "**normal**" position.
20. **VR1-1, VR1-2 :** Volume control
21. **VR2-1, VR2-2 :** Balance control
22. **VR3-1, VR3-2 :** Phono 2 gain control
23. DC voltage measurements are taken with DC VTVM from chassis ground.

odel SU-9200 (This schematic diagram may be modified at any time with the development of new technology.)



itch in "**defeat**" position. on ↔ defeat
turnover frequency switch in "**500 Hz**" position.
), S13-2 (125 Hz)
e turnover frequency switch in "**8 kHz**" position.
S14-2 (2 kHz)
tch in "**off**" position.
↔ 15 kHz
ch in "**off**" position.
15 Hz
switch in "**on**" position.
or switch in "**240 V**" position.
↔ 220V ↔ 240V
tput relay in "**normal**" position.
lume control
lance control
ono 2 gain control
ments are taken with DC VTVM from chassis ground.

any time with the development of new technology.)



ORDER NO. SD7605-1007-2

Service Manual

Supplementary-2

Stereo Control Center

SU-9200-(X,XE,XH,FEE)

* This service manual includes only the changes of **SU-9200-(X,XE,XH,FEE)** service manual (ORDER NO. SD7512-1007-1).
* This manual should be filed with the service manual for model **SU-9200-(X,XE,XH,FEE)** (ORDER NO.SD7512-1007-1).
* When servicing model **SU-9200-(X,XE,XH,FEE)** this service manual should be used together.

SUBJECT ; Modification of Muting

The above model has had its D.C. Supply polarity modified from plus to minus for the muting relay circuit.

The modified models have changed serial numbers ; from "B" to "C" and "C" to "D".

★ SU-9200-(XE) ..... B→C

SER. NO. → **MODIFIED SER. NO.**

★ SU-9200-(X,XH,FEE.) ..... C→D

SER. NO. → **MODIFIED SER. NO.**

■ MODIFICATION PARTS LIST

Ref. No.	Ser. No. **B** & **C**	Modified Ser. No. **C** & **D**	Deseription	PerSet (Pcs)
TR507	2SC828	2SA666AI	Relay Switching	1
TR508	2SC828	2SA666AI	Relay Switching	1
TR509	2SC1509	2SA777	D.C. Voltage Control & Relay Driver	1
RELAY 1, 2	SSEA14	SSY11	A.F. Output Relay	2

■ CHANGED POLARITY OF COMPONENTS (MODIFIED SER. NO. C & D)

Ref. No.	Part No.	Description	Per Set (Pcs)	Remarks
D508	RVD10D1	Diode	1	
D509	RVD10D1	Diode	1	
C512	ECEA25V3R3L	Electrolytic	1	
C513	ECEA6V220L	Electrolytic	1	

National Technics

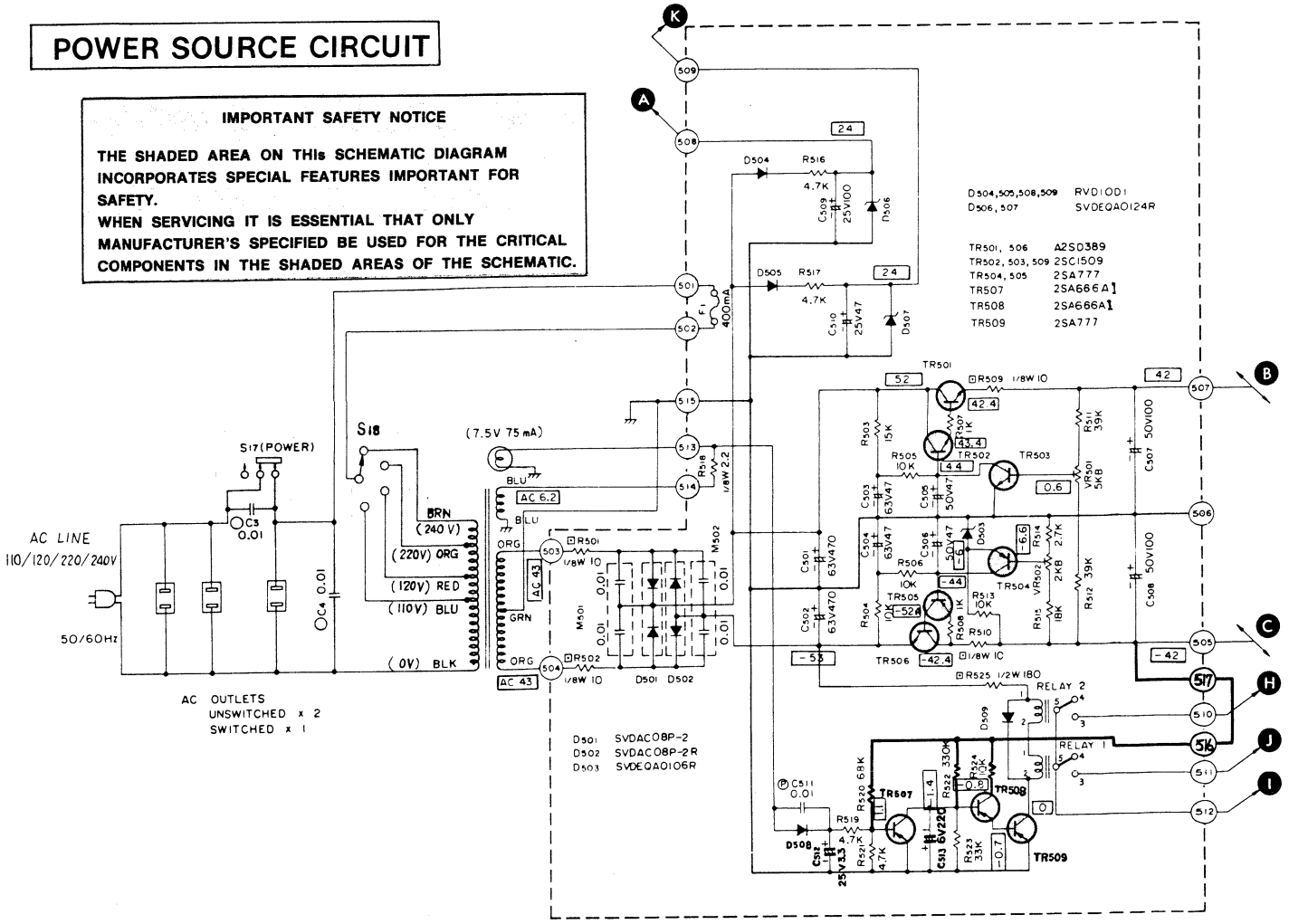
Matsushita Electric Trading Co., Ltd
P.O. Box 288, Central Osaka Japan

■ Modified schematic diagram and printed circuit board are as follows.

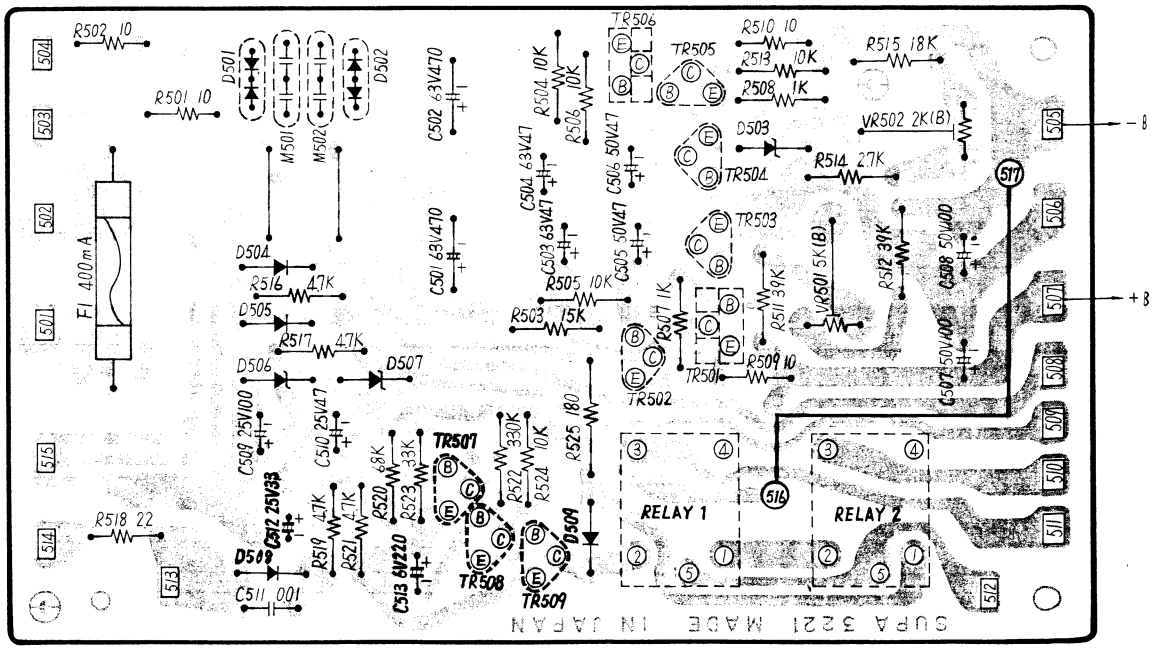
POWER SOURCE CIRCUIT

IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIs SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY.
WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.



POWER SOURCE CIRCUIT BOARD (SUPA3221)



TR509	
C	0 V
B	-0.7 V
E	0 V

TR508	
C	-0.8 V
B	-1.4 V
E	-0.7 V

TR507	
C	-1.4 V
B	+1.1 V
E	0 V